

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference L1243 PCT	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/US2004/012267	International filing date (day/month/year) 20.04.2004	Priority date (day/month/year) 06.06.2003	
International Patent Classification (IPC) or national classification and IPC G02B5/02, G02B5/04, G06F3/033, G02F1/133			
Applicant 3M INNOVATIVE PROPERTIES COMPANY et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 06.04.2005		Date of completion of this report 17.08.2005	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Hornung, A Telephone No. +49 89 2399-2595 	

**INTERNATIONAL PRELIMINARY REPORT
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PCT/US2004/012267

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-21 as originally filed

Claims, Numbers

1-6 received on 06.04.2005 with letter of 06.04.2005

Drawings, Sheets

1/5-5/5 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-6
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-6
Industrial applicability (IA)	Yes: Claims	1-6
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: US 6,433,933

D2: JP 2003-050673

D3: JP 10172377

Inventive step.

Insofar as the claims can be understood, the subject-matter of claims 1-6 does not involve an inventive step in the sense of Article 33 (3) PCT.

1. D1 discloses, with reference to figure 3, an image display (300) having an optical diffusing film (350) as the outer surface of the image display, the film comprising a "plurality of surface structures such as grooves and/or pyramids" (column 4, lines 58-66). One of the applications of the image display (300) is a touch screen panel (see figure 1; column 3, lines 21-24).

Hence, the subject-matter of claim 1 differs from the device of D1 in that the microstructures are disposed in a regular pattern. D1 remains silent about the exact shape of the diffusing surface. However, no inventive skills can be seen in providing the diffusing surface with a regular pattern, whatever the word "regular" actually means (e.g. regular height, regular period, regular composition of the material, ...). See also the diffusing pattern in figure 3 of D1 indicating a regular pattern of perpendicular lines.

2. It has to be noted that D2 and D3 would also seem to render obvious the claimed device for the following reasons:

- D2 discloses a regular pattern of microstructures (2) (see for instance figures 1, 2 and 5) on a touch panel screen.
- D3 discloses a pattern of microstructures (3) on a touch panel screen.

3. Dependent claims 2-6 do not contain any features which, in combination with the features

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of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:

- * claim 2: the microstructures of D1 are disposed on a transparent glass sheet (310);
- * claim 3: D1 discloses a pyramidal structure (column 4, lines 62-64);
- * claim 4: it is an obvious possibility to design a regular pattern having a regular shape, height and density; see for instance figures 5A-5E of D2;
- * claim 5: the film diffuser (350) of D1 is made of plastic (column 4, line 60);
- * claim 6: hard coatings for light diffusing films are known for instance from D3 (see hard coat layer (2) in D3);

Re Item VII

Certain defects in the international application

The documents D1-D3 are not identified and discussed in the description (Rule 5.1 (a) (ii) PCT).

The independent claim 1 is not drafted in the two-part form (Rule 6.3 (b) PCT).